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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,077	06/25/2003	Matthew Ashby	ASHBY/I DIV	1068
1473	7590	05/31/2006	EXAMINER	
FISH & NEAVE IP GROUP ROPES & GRAY LLP 1251 AVENUE OF THE AMERICAS FL C3 NEW YORK, NY 10020-1105			STRZELECKA, TERESA E	
			ART UNIT	PAPER NUMBER
			1637	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/607,077

Applicant(s)

ASHBY, MATTHEW

Examiner

Teresa E. Strzelecka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-56 is/are pending in the application.
- 4a) Of the above claim(s) 51-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of species B (natural gas deposit, claim 50) in the reply filed on March 6, 2006 is acknowledged. The traversal is on the ground(s) that the restriction between the natural gas and oil deposits is improper, since these two often exist together. Applicant further argues that species B and C should be examined together, since hydrocarbons are constituents of oil and gas. Examiner agrees that species A and B should be examined together. However, the argument that species B and C should be considered together is not persuasive since the parameter of interest being a subsurface oil is not equivalent to a parameter of interest being a dynamic change of hydrocarbon composition which occurs during oil field's development. For example, the hydrocarbons in claim 51 are not restricted to constituents of oil and/or gas, and can be any hydrocarbons present in an oil and/or gas field.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 51-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 6, 2006.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on April 14, 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Interpretation

4. The term "PCR-based assay" has not been defined by Applicant, therefore it is interpreted as any assay utilizing PCR in any step.

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5. The term “parameter of interest is surface oil or natural gas deposit” in interpreted as any area containing oil or gas.

6. The terms “perfect correlation”, a “high degree of correlation” and “moderate degree of correlation” have not been defined, therefore, the first two terms are treated as equivalent, and the third as any degree of correlation.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 45-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Telang et al. (Can. J. Microbiol., vol. 40, pp. 955-964, 1994).

Claims 45 and 46 will be considered together in claim 45, since it is a species of claim 46.

Regarding claims 45 and 46, Telang et al. teach a method of identifying environmental parameters of interest by a method comprising:

a. providing a soil sample containing a population of interest (Telang et al. teach providing soil samples containing microbial populations (page 956, third and fifth paragraphs).);

b. isolating genomic DNA from the soil sample (Telang et al. teach isolating DNA from the soil samples (page 956, last paragraph; page 957, first paragraph).);

c. performing a diagnostic PCR-based assay utilizing a plurality of species-specific probes to the nucleic acid marker sequence that shows a correlation to the parameter of interest (Telang et al. teach performing a hybridization assay with the following species-specific probes: [NiFe] hydrogenase gene probe, 16S rRNA probe and total genomic DNA probes, all obtained from sulfur-

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reducing bacteria (SRB) which are found in oil and gas formations (page 955, first paragraph; page 956, second paragraph; page 957, paragraphs 2-8; page 958-960). Since the 16S rRNA probe was prepared by PCR (page 957, fifth paragraph), the hybridization assay was PCR-based).); and

d. inferring the presence of the parameter of interest based upon the presence of the nucleic acid marker sequence (Telang et al. teach inferring the presence of sulfur-reducing bacteria in samples using the [NiFe] probe and 16S rRNA (Table 2; page 962).).

Regarding claims 47 and 48, Telang et al. teach a high degree of correlation, or perfect correlation, between the hybridization to the [NiFe] and 16S rRNA probes and the presence of sulfur-reducing bacteria in soil after enrichment with lactate (Table 2; page 962, first and second paragraphs).

Regarding claim 49, Telang et al. teach moderate degree of correlation between the hybridization to the [NiFe] and 16S rRNA probes and the presence of sulfur-reducing bacteria in soil after enrichment with propionate (Table 2; page 962, first and second paragraphs).

Regarding claim 50, Telang et al. teach that sulfur-reducing bacteria are associated with oil and gas fields (page 955, first paragraph) and teach correlation between the presence of sulfur-reducing bacteria and oil presence in the samples (Table 2; page 962).

9. No claims are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa E. Strzelecka whose telephone number is (571) 272-0789. The examiner can normally be reached on M-F (8:30-5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Teresa E Strzelecka
Primary Examiner
Art Unit 1637

Teresa Strzelecka
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